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# NATIONAL ASSOCIATION of CORPORATION SCHOOLS

## Bulletin

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Volume II

October, 1915

### Association Activities

A Report of the September Meeting of the Executive Committee

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### Doherty "Cadet School" Makes Managers

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### Educational Activities at Norton Companies

By E. H. FISH, Supervisor Educational Department

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### Professor Roman Attacks Vocational Training

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### Rural Schools Flayed at N. E. A. Meeting

By H. W. FOGHT, United States Bureau of Education

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### Educating the Adult Emigrants

By J. O. KNOTT, United States Bureau of Education

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PUBLISHED BY ORDER OF THE  
EXECUTIVE COMMITTEE

# The National Association of Corporation Schools

Headquarters, Irving Place and 15th Street, New York City

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## Objects

Corporations are realizing more and more the importance of education in the efficient management of their business. The Company school has been sufficiently tried out as a method of increasing efficiency to warrant its continuance as an industrial factor.

The National Association of Corporation Schools aims to render new corporation schools successful from the start by warning them against the pitfalls into which others have fallen, and to provide a forum where corporation school officers may interchange experiences. The control is vested entirely in the member corporations, thus admitting only so much of theory and extraneous activities as the corporations themselves feel will be beneficial and will return dividends on their investment in time and membership fees.

A central office is maintained where information is gathered, arranged and classified regarding every phase of industrial education. This is available to all corporations, companies, firms or individuals who now maintain or desire to institute educational courses upon becoming members of the Association.

## Functions

The functions of the Association are threefold: to develop the efficiency of the individual employe; to increase efficiency in industry; to have the courses in established educational institutions modified to meet more fully the needs of industry.

## Membership

*From the Constitution—Article III.*

SECTION 1.—Members shall be divided into three classes: Class A (Company Members), Class B (Members), Class C (Associate Members).

SECTION 2.—Class A members shall be commercial, industrial, transportation or governmental organizations, whether under corporation, firm or individual ownership, which now are or may be interested in the education of their employes. They shall be entitled, through their properly accredited representatives, to attend all meetings of the Association, to vote and to hold office.

SECTION 3.—Class B members shall be officers, managers or instructors of schools conducted by corporations that are Class A members. They shall be entitled to hold office and attend all general meetings of the Association.

SECTION 4.—Class C members shall be those not eligible for membership in Class A or Class B who are in sympathy with the objects of the Association.

## Dues

*From the Constitution—Article VII.*

SECTION 1.—The annual dues of Class A members shall be \$50.00.

SECTION 2.—The annual dues of Class B members shall be \$5.00 and the annual dues of Class C members shall be \$10.00.

SECTION 3.—All dues shall be payable in advance and shall cover the calendar year. Any members in arrears for three months shall be dropped by the Executive Committee unless in its judgment sufficient reasons exist for continuing members on the roll.

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The New York Edison Company

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# The National Association of Corporation Schools

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## Bulletin

Published by Order of the Executive Committee  
Edited by F. C. Henderschott, Executive Secretary

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### GOVERNMENTAL CONTROL SUCCEEDING RELIGIOUS AID IN EDUCATION

While the primary or common schools of the United States have always received the recognition of taxpayers, and while common school education has been pretty generally shaped and controlled by boards of municipal and governmental character, our early secondary educational institutions had their origin almost entirely in religious denominations.

In 1638 Harvard College was established under the glorious motto, "For Christ and the Church." In 1693, William and Mary College (now Columbia) was founded by the Episcopalians; in 1700, Yale College by the Congregationalists; and in 1746, Princeton College by the Presbyterians. When, in 1769, the Earl of Dartmouth "planted a small college among the rough, wooded hills of New Hampshire, where did he go for his motto? To the classic lore of pagan poet? To the lordly eloquence of John Milton? No; he laid hold of the Christian Scriptures, and from their sacred pages wrested this motto, which he caused to be inscribed over the door of the first hall of Dartmouth College 'Vox clamantis in deserto'—the voice of one crying in the wilderness."

But these universities have long since lost much of their religious characteristics. One no longer inquires if Princeton is Presbyterian or Harvard is Unitarian, but rather carefully scrutinizes the curriculum and determines other advantages educationally and socially which can be had.

In the middle west there are growing institutions, non-sectarian and State supported which are compelling recognition and which promise to divide the glory of Yale, Harvard, Princeton and Dartmouth. For example, the University of Michigan at Ann Arbor, the University of Wisconsin at Madison, the University of Minnesota, between the twin cities of St. Paul and Minneapolis, the University of Chicago, the University of Cincinnati and not quite so far west, America's fastest growing secondary educational institution, the University of Pittsburgh, and

on the west coast the University of California at Berkeley. These institutions are quoted almost as much as the older and better known institutions of learning of the East. There is little doubt but secondary education in the future will be guided less by religious organizations and financed and controlled mostly by governmental and municipal bodies.

Education in the earlier periods had a philanthropic aspect which does not now exist. While education is the foundation of culture it is equally the foundation of industry and efficiency. Education for culture will continue, and should continue, but education for efficiency in production and marketing will embrace the larger number and command increasing attention.

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### WHEN THE READJUSTMENT PERIOD ARRIVES

In an address before the San Francisco Commercial Club, Mr. Elbert H. Gary said:

With its great and increasing wealth and its natural resources, its productive capacity, its location and with its well defined and settled policy to foster and encourage its industries, who can measure the future natural growth and strength of the United States? We have the opportunity to become the leading nation of the world financially, commercially and industrially. If we live up to the responsibilities that circumstances thrust upon us; if we have good sense and tact, all departments of natural life co-operating in an earnest desire to promote the best interests of all, we shall obtain a national reputation and influence greater than ever before possible of any nation; and individual success in proper endeavor will be sufficient to satisfy all reasonable desires. Every diligent and worthy member of the community may prosper if he really wishes.

Rather a pretty picture and yet not exaggerated. However, there are certain conditions which must be conformed to if we are to realize the picture. The theory of many optimists that the trade center of the world, as a result of the European War, will be brought to New York, is not borne out by the experts of the National City Bank who have been compiling trade statistics for many months.

England has not been asleep, as the figures show, having started last January to regain what she lost in the first six months of the War. A summary of England's success is contained in an article published in *The Americas*, which is issued by the National City Bank.

In order to obtain a clear view of the development of world

trade since the reconstruction period set in it is of advantage to see what is doing in foreign trade. Since the first of the year her export business has recovered steadily till it was only something like 16 per cent. below the 1914 volume in June. Her imports have been kept from 8 to 20 per cent. above last year's increasing ratio since the beginning of Germany's submarine activities.

Her export of English products has been as follows: January, £28,247,592, which was 40.9 per cent. below 1914; February, £26,176,937, which was 36.5 per cent. below; March, £30,084,860 or 32.2 below; April, £32,169,733 or 19.4 per cent. below; May £33,618,992, or 20 per cent. below, and June at about the May figure and only 16½ per cent. below.

Moreover, according to the statistics, England has practically returned to her normal state as the leader in re-export or "middleman" business. Last January this business dropped 28.1 per cent. below normal. In May it was only 1.2 per cent. below normal, having gained steadily at the rate of about \$7,000,000 a month. This feat in readjustment is all the more remarkable because by the British Orders in Council the re-export of wool, rubber, and metals has been limited.

As for the United States the statisticians found that she was "doing very well." This country, with its limited marine shipping facilities, increased her trade in every direction. The article adds:

With a greatly decreased tonnage of ships sailing direct to the continents other than Europe, having no merchant marine of our own to open up full communications for direct trade, we have increased our commerce with South American, Asia, Africa and Oceania nearly a third. We have steadily gained in our sales to these continents month by month, till June has shown a rate of movement that bids fair to bring our increase of export to the peaceful parts of the world up to an aggregate between \$400,000,000 and \$500,000,000 bigger for the calendar year 1915 than it was in 1914, and certainly more than \$300,000,000 greater than our normal sales to these parts of the world have been. Although we have not been able to pull the principal focus of world trade across the Atlantic from the British Channel into New York Bay, much trade is taking our direction.

In this recovery of ability to buy and necessity of buying among the countries at peace the United States has, month by month, improved its position as a vendor of manufactured and other products. We have found new trade everywhere. The percentages of the increase of our selling to the peaceful continents seem flattering. We have done our part also in buying from other countries. June statistics of commerce show our exports to all the world outside of Europe 30 per cent. above those of June, 1914; our imports 26 per cent. above. It should not be forgotten

that we had a balance of trade against us in our commerce with that part of the world of \$26,023,897, compared with \$21,688,080 the June a year before.

Referring to the exports to Europe, under which our much-talked-of war consignments are, of course, listed, the article in *The Americas* says:

No one can regard the trade with Europe as anything to be more than temporarily counted on. We are selling upward of \$100,000,000 worth of raw and manufactured products a month to Europe for war purposes alone. A minute examination of May's exports shows an increase over May, 1914, of \$94,450,858 in munitions and merchandise available for war purposes in European buying. This includes increased shipments of food of various kinds.

One might say that \$100,000,000 is the limit of Europe's war buying and figure an actual increase in Europe's purchase of the merchandise of peace, but such a thing seems hardly reasonable to believe. The increases in separate items probably do not represent all the war-buying. War-buying no doubt accounts for more than the increase. And in any case, we can not depend upon Europe's demand. Any one of a number of contingencies may make great changes in it. The sales of war materials are too big a part of Europe's trade with us to permit us to take comfort in the big export to her.

The article adds that those sales "spell a troublesome readjustment that we must face when the peace comes."

What can American industry do to reduce this readjustment to the minimum in so far as it will detrimentally affect American industry? There are evidences that American business men are fully alive to the situation. Intense studies of commerce, both foreign and domestic, are being carried on. Closer and more friendly relationships are being encouraged, but perhaps the greater element which will enter into this readjustment is the training of the American workingman. Other things being equal the "trained man" always wins. It therefore seems desirable that the movement for broader industrial education should be promoted to its fullest possibilities and as rapidly as the work can be accomplished successfully.

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### TRADE SCHOOLS IN THE UNITED STATES

The Government's Bureau of Education has just made a compilation of all the schools in the United States where trades are taught. The list shows eighty-five schools in all, fifty-three of which are co-educational, seventeen where boys may be taught

trades and fourteen where girls may be taught trades. Of the total number of schools five are for negroes only and those are all located in the Southern States.

The total is pitifully small for a country which aspires to industrial leadership. However, all over the United States additional trade schools are either being established or movements are on foot looking to the inauguration of such schools.

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### **THE GROWING IMPORTANCE OF THE AGRICULTURAL SCHOOL**

The tendency in the United States is toward centralization of population, but to say that 70% of the population in the United States was rural in 1880 against a little over half of the population now, doesn't give an adequate conception of city growth. The *Saturday Evening Post* recently contained an article in which some interesting figures were given:

A few states contain hardly any rural population. Only three per cent. of the inhabitants of Rhode Island, seven per cent. of the inhabitants of Massachusetts and ten per cent. of the inhabitants of Connecticut live outside of towns having twenty-five hundred or more population. More than three-quarters of the inhabitants of New York and New Jersey are townfolk, and nearly two-thirds of the inhabitants of Illinois. About a third of the total population of the country lives in cities of thirty thousand and upward.

There are a hundred and ninety-nine such cities, containing altogether over thirty million people; but thirteen millions of this combined city population is found in nine of the biggest cities. These nine biggest cities, then, have about one-eighth the total population of the country, and their joint bank account exceeds that of all other cities combined, receipts from revenue and non-revenue sources running over a billion dollars a year. . . .

We haven't a doubt that the urban population will continue indefinitely to increase faster than the rural population. There are many reasons why it should. Getting the fullest yield from the land is much less a question of more hands than of better farming, while there is no end to the possibilities of urban production. Probably the bigger cities will grow relatively faster than the smaller ones.

It is well to keep in mind this tendency toward centralization in framing new educational systems. Most of the people who live in cities earn their living either in the factories, through the transportation systems or in the stores.

As population becomes more dense and less rural the agricultural problem increases in importance. The land must be



made to produce more, acre for acre. The average production must be increased. The city population has to be fed. Scientific farming becomes a reality. Farming scientifically is the result of proper training, correct dissemination of knowledge of soils, rotation of crops, climates, seeds, etc.; thus the growing importance of the agricultural school.

It is important that we train our factory workers, the employes of our great transportation systems and those who wait upon us in our stores, but it is equally important that we train those who are to produce our food and the basic material from which our clothing is made.

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### **IMMEDIATE VS. ULTIMATE REWARD**

Industrial institutions must not overlook the value of inspirational work in connection with their educational activities. Human nature is so constituted that the majority of the rank and file cannot appreciate the larger and ultimate reward as compared with the smaller and immediate reward. The full value of education cannot be capitalized or realized upon immediately. Education is an asset which aids in attaining the ultimate reward. Therefore, much inspirational work is necessary in order to encourage the employe students that they may see the advantages of the deferred reward. This contention is not based upon theory but rather upon experience of those who have devoted study and years to actual training.

Frederick Winslow Taylor, the father of scientific management, was considered an open-minded man, but one of the things about which Mr. Taylor would not argue was the proposition that the reward for labor must be immediate if the employer giving the reward desires to get anything in return for his investment. The bonus for unusual work offered for some indefinite period produces no results.

A writer on this subject recently stated, "I have yet to see a sales force where the salary averaged less than \$1,800 a year that would respond to a bonus system in which the reward was more than a week away."

In framing courses for corporation schools this trait of human nature should be carefully kept in mind. Employes who graduate from corporation schools should be given some immediate recognition. And inspirational work on their behalf should be continued, through occasional lectures and through other approved channels until such time as the student employe reaches



that period in personal development where the greater possibilities of the deferred or ultimate reward is recognized.

### **A CONDITION AND A PROPHECY**

In a recent interview, Dr. Charles P. Steinmetz, recognized as the foremost electrical engineer of the present period, born and reared in Germany and thoroughly familiar with German educational systems, characterizes vocational training as the most important industrial problem in this country. Dr. Steinmetz, however, made another statement of equal or greater importance. He said, "the superiority of America in the electrical industry over all other countries is due largely to educational development and to co-operation between the manufacturing companies and educational institutions."

There are those who have not realized that the United States is supreme in the electrical industry both manufacturing and operating. We have become accustomed to reading and hearing of the superiority of Germany and we have become equally accustomed to hearing this superiority attributed to industrial education. But here is a statement, from an authority that cannot be questioned, that at least one of the great industries of the world, the electrical industry, is predominantly American and that the reason for leadership of the United States over all other countries is due to educational development and to co-operation between electrical manufacturing companies and our educational institutions.

These conditions exist. It is only a matter of extending this co-operation between manufacturing companies of other industries and our educational institutions, to secure for the United States the leadership among the industrial nations of the world.

### **MRS. YOUNG'S ATTACK ON VOCATIONAL TRAINING**

It is regrettable that the fight in Illinois between the Dual System and the Unit System should have been carried by Mrs. Ella Flagg Young, superintendent of education of Chicago, into the National Educational Association and there made a general fight on vocational training. So far as the BULLETIN is advised the industries of the United States are not interested as to whether the Dual System or the Unit System prevails, but the industries of the United States are interested in the training of American workingmen so that the United States will have at least a fair chance for commerce in competition with other leading industrial nations.

Mrs. Young and her ally, Professor Roman of Syracuse University, evidently ignore the fact that all prosperity finds its basis in agriculture and the workshop. If the educational forces of the United States are to continue as in the past, concentrating their efforts to produce the relatively insignificant number who graduate from our higher institutions of learning then the United States cannot hope to increase its position as a world power.

Commerce is the basis of power and unless some system is speedily inaugurated by which the American boy, who enters business life, is mentally and physically equipped at least the equal of the foreign boy who enters commerce, our dreams of becoming the leading industrial nation of the world will be dreams only. Other things being equal the "trained man" always wins.

The logic of Mrs. Young and Professor Roman scarcely needs elucidating. The man who rises to a position of power in an industrial institution is the man who understands that institution from bottom to top. The theory that industrial training consigns the workingman to a permanent position at the bottom is as ludicrous as would be the theory that the boy or girl with musical talent should remain uneducated in music for fear of retarding their development.

Back of the whole attack which Mrs. Young and Professor Roman made on vocational training during the recent convention in California is the desire on the part of Mrs. Young to prevent the passage of the Cooley bill which will establish the Dual System of education in Illinois and which bill is championed by the Commercial Club of Chicago.

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### **A NEW ORGANIZATION TO SECURE EFFICIENCY**

The Employment Advisers Club, an organization that means a step in the right direction in the selecting and placing of workers, was affected at the City Club in Chicago, at a meeting of those interested in the subject, held July 12, 1915.

Prior to the formation of the club, several meetings had been held by men interested in the work, the result being the organization of the present club.

A constitution was adopted and officers elected for the ensuing six months as follows: President, Lewis Atherton; Vice-President, William Bachrach; Secretary, E. E. Sheldon; Treasurer, C. L. Woodfield; Member Executive Committee, John W. Atchison.

## **ASSOCIATION ACTIVITIES**

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### **WHAT TRANSPIRED AT THE SEPTEMBER MEETING OF THE EXECUTIVE COMMITTEE—PLANNING THE CAMPAIGN FOR INCREASED MEMBERSHIP— WORK OF THE SUB-COMMITTEES**

The Executive Committee of our Association met in New York on September 7th. There was a good attendance, President McLeod being in the chair.

The Executive Secretary reported that voluntary subscriptions to the amount of \$1,735.00 had been received to aid in financing the additional work to be undertaken by our Association this year. President McLeod stated that the National Tube Works would contribute \$100.00 toward this work and a \$200.00 contribution has been received from President Rice of the General Electric Company, making a total of \$2,035.00 to date.

The plan to increase Class A membership was discussed and as finally worked out the plan is to have the sub-committee of the Policy and Finance Committee, which issued the appeal for additional funds, sign a letter to be sent to Presidents of the leading industrial institutions of the country setting forth both the direct and indirect benefits of Class A membership in our Association. President McLeod plans to follow up this appeal by personal work on the part of the New Membership Committee which he will name.

Mr. Dooley raised the question of establishing local branches of the Association where there are a sufficient number of members to permit of the carrying out of such arrangement. It was decided that the plan would be first tried out in Pittsburgh and New York.

Letters were read from Mr. John H. Patterson, President of the National Cash Register Company, A. E. Corbin of the Packard Motor Car Company, T. E. Donnelley of R. R. Donnelley & Sons, J. F. Gilchrist of the Commonwealth Edison Company and Mr. F. W. Thomas of the Atchison, Topeka and Santa Fé Railway. The Executive Committee carefully considered the contents of these letters and the suggestions offered and it was the unanimous opinion of the Committee that the memorandum of instructions issued by the Executive Committee to the chairman of the sub-committees, outlining the plan and scope of the

Association's work for the coming year was in accordance with the suggestions and desires expressed in these letters. It is the plan of the Executive Committee that the sub-committee shall during the coming year do a definite and concrete work, the scope of such work covering the more immediate necessities of our member companies.

Upon motion, duly seconded, and unanimously carried, Class A membership dues for the balance of 1915 were reduced to \$25.00.

The Executive Secretary reported the Proceedings of the third annual convention held at Worcester are now in the hands of the printer and that bound volumes are expected for delivery about the first of November.

The Executive Secretary presented a letter from Mr. Forrest F. Dryden, President of the Prudential Insurance Company, asking the privilege of entertaining our convention when it shall again meet in the East. The Prudential Insurance Company is a new Class A member. President Dryden's invitation was received and will be given careful consideration when our Association decides to next meet in the Eastern part of the country.

A completed list of Committees was presented and approved. Mr. C. R. Johnson of the Goodyear Tire and Rubber Company having declined reappointment to the chairmanship of the Committee on Employment Plans, F. E. Pitzer of the Equitable Life Assurance Society was appointed to this chairmanship and has accepted. Mr. W. A. Grieves of the Jeffrey Manufacturing Company was added to this Committee. Mr. Johnson will serve as a member of the committee.

Mr. William R De Field of Montgomery Ward and Company has been added to the Committee on Office Work Schools.

Mr. Ralph W. Kinsey of the Dives, Pomeroy & Stewart Department Store, Reading, Pa., has been added to the Committee on Retail Salesmanship.

Mr. George B. Everitt, chairman of the Committee of Office Work Schools, presented a preliminary report for his committee covering the scope of work to be done prior to the fourth annual convention, which outline and report was approved by the Executive Committee.

The chairmen of other committees will present their preliminary reports, giving scope and outline, to the Executive Committee at its next meeting in New York on October 5th.

Treasurer Everitt presented his report, showing cash on

hand \$1,189.90 and total assets of \$2,673.50. Disbursements from July 1st to September 1st, \$1,067.50.

### **Activities of Sub-Committees**

The Committee on Office Work Schools has had its program approved by the Executive Committee and is proceeding actively in its work. The report of this committee as submitted to the fourth annual convention will probably comprise a manual covering all branches of office work instruction and include curriculums for teaching.

Mr. J. W. L. Hale, chairman of the Committee on Trade Apprenticeship Schools, reports the work of his committee well in hand.

Mr. J. W. Dietz of the Western Electric Company, chairman of the Committee on Special Training Schools, has had a meeting of his committee and their work is progressing nicely.

Mr. James W. Fisk of the J. L. Hudson Department Store, chairman of the Committee on Retail Salesmanship, held a meeting of his committee in New York on September 17th.

Dr. Lee Galloway, chairman of the Committee on Advertising, Selling and Distribution Schools, states that the main work of his committee during the coming year will be devoted to the problem of selling; advertising and distribution being considered only in their relations to marketing. Dr. Galloway is considering adding two or three additional members to his committee.

Mr. F. E. Pitzer of the Equitable Life Assurance Society has assumed active charge of the work of the Committee on Employment Plans.

Mr. Sidney W. Ashe, of the General Electric Company chairman of the Committee on Safety and Health, reports that his committee has undertaken an extensive program, but will specialize on education as the dominant factor in health and safety work.

Mr. E. H. Fish of the Norton and Norton Grinding Companies, chairman of the Committee on Public Education, reports the work of his committee in excellent condition. Mr. Fish will address the Second Pan-American Scientific Congress to be held in Washington, D. C., December 27th to January 8th. Mr. F. C. Henderschott will also discuss the "Corporation School" at this conference.

Mr. C. R. Sturdevant is the new member of the Vocational Guidance Committee. Dr. Henry C. Metcalf, chairman of this committee, conferred with Mr. A. C. Vinal of the American Tele-



phone and Telegraph Company in New York the fore part of the month, and stated that a meeting of his full committee would be held in Worcester some time during the month.

Mr. Harry Tipper of the Texas Company, chairman of the Codification Committee, has prepared a questionnaire to secure the data necessary for the codification of educational work being done by Class A members of our Association. The work of this committee is well in hand.

Mr. James A. Roosevelt, chairman of the Committee on Allied Institutions, will make a preliminary report of the plans of his committee to the Executive Committee at its meeting on October 5th.

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### **MANY SURVEYS OF FOREIGN SCHOOLS**

Discussing "Some Foreign Educational Surveys" before the Congress on Professional Supervision of Public Schools, James Mahoney, head of the English department of the South Boston High School, stated that they "differ from the American in point of authorization, in that (a) practically all are made under government auspices; (b) and the work is done either by (1) a royal commission; (2) a select parliamentary committee, or (3) under the direction of a minister of education.

"The scope of the foreign survey is, in general, wider; it looks less to local conditions than the American survey," said Mr. Mahoney. "The method of the European survey is (a) by oral testimony of school directors, inspectors, and others who have knowledge of schools; (b) personal investigation of the schools by recognized experts; (c) by circular letters or questionnaires; (1) to all persons directly concerned with the schools in question; (2) to eminent men competent to judge of educational matters; (d) through personal investigation of schools, resembling those under investigation in all the other progressive nations. The findings of these commissions carry with them the weight of government authority.

"The reason for the governmental interest in surveys is revealed, namely, international industrial competition and the belief that industrial progress is dependent upon education.

"These foreign surveys accordingly insist that the children shall receive such training as will enable them to earn their daily bread and do their share of the nation's work, civic as well as industrial. The foreign countries which have made the greatest number of educational surveys, some of them long antedating ours, are England, Belgium, and France.



## **DOHERTY "CADET SCHOOL" MAKES MANAGERS**

### **How the Educational Work of This Large Syndicate Operating Company is Carried On**

*(Reproduced from the Doherty News)*

The most interesting plant in the Doherty syndicate is that in which new managers and technical experts are started on their road to achievement. This plant is known as the School of Gas and Electric Practice. The raw materials are graduates from technical schools all over the country, recruited at the average number of 30 per year. The machinery which molds and finishes this raw material consists of the numerous departments of the well organized Denver Gas & Electric Light Company, where the recruits are given daily lessons and lectures in all of the various branches of the public utility business.

The output of this factory is represented by the technically trained man, who has had two years of practical experience, supplemented with expert technical tutelage by practical operators. This output finds its way into the various ramifications of the extensive Doherty interests, part of it being consumed by the requirements of the auditing departments, many by the requirements of the engineering departments and unnumbered others by the department for developing the business of the various operating companies, for as a matter of fact the call for the trained man is insistent everywhere.

Technical graduates are chosen as pupils in this important school, because the graduate of an engineering institution has acquired the theoretical training which most readily enables him to absorb the lessons of practical experience. Nearly all the prominent technical institutions in this country are represented by the men who have enlisted in this work.

#### **Qualifications Carefully Examined**

The qualifications of the men taken into this school are carefully examined into before they are admitted, and not only their scholastic attainments considered, but also their talents for co-operation and good fellowship.

From the cap and gown of the college graduate to the overalls and oil can of the engine wiper is indeed a far cry, but where-as the graduates may know his thermodynamics, his calculus, his physics, chemistry and a multitude of "ologies," he must learn many lessons of a practical kind.

He must learn to be sympathetic with the man who puts in the long hours of each day watching and attending the machinery that is turning darkness into light. He must know just what is required of such a man, how to recognize a good one when he sees one, how to criticize helpfully and superintend efficiently the work of all such men. Indeed, he should learn and he does learn, by rubbing elbows with the operatives, how absolutely necessary it is to inspire among them a high regard for himself and the fullest confidence in his ability and good faith, in order to get co-operation from those who subsequently will be working under his management.

The young engineer has been taught the design of electrical transmission and distribution lines, but he has not been permitted to see the swift and furious work of an unexpected storm of hail. He must be taught how the emergency crew, which makes the repairs, is organized and despatched in motor vehicles in every direction to repair the damage and restore the service almost before the public has ceased in its wonderment while watching the storm in itself. At such times he sees things done that he never was taught in school. He sees emergency use of apparatus that he never would dream of from text books.

### **Taught To Apply Knowledge**

The young engineer learned in school the theoretical principles, according to which electric power is supplied to light the way of civilization, but he must be taught how to sell this product. The modern public utility company does not sit in its office waiting for business to come soliciting service, but on the other hand it employs every legitimate means for increasing its business. Perhaps no one ever thought to tell the young man this while he was in school.

The greatest lesson a cadet engineer has to learn is the enormous value of co-operation. He was taught in school that the sum of two and two is four, but he learns in the School of Gas and Electric Practice that four men working together accomplish vastly more when co-operating than twice that number of men could accomplish alone.

The details of the cadet engineer's work consist in his taking a part in every line of activity of the company for greater or less periods of time, depending upon the amount to be learned in each particular department. He reads meters for a while and he goes to the electric meter shop and takes his place on the bench

with the meter repairmen, where he works shoulder to shoulder with the crew which keeps the meters in order.

He spends some time in the engineer's offices, working over building designs, plotting maps, laying out distribution lines and making technical computations.

### **Overalls and Dinner Bucket**

He works for a time at the gas works and while there he reports for duty with his overalls and his dinner bucket at seven o'clock, if that is the hour at which the others do. There, for many weeks he helps keep the gas free of sulphur and ammonia, makes tests of all of the operations of the plant, and may perhaps before he leaves have charge of a crew of men.

At the electric generating station he takes his place with the repair crew and he learns there to have respect for the men who must keep the public's light going; for he sees these men oftentimes go to work on a machine late Saturday night and never stop for forty hours except to eat, in order to have that machine ready for the Monday night "load." He shovels coal, tests boilers, wheels ashes, oils machinery, keeps plant records, makes sketches and blue prints for the chief engineer, and after some months of his stay there, he has a very concrete idea of the workings of an electric station.

He takes his place for a time with the men who put in new gas mains; and, whether he serves as time keeper or "runs a level," he sees how a gas main is laid and learns of the practical why and wherefores of the sizes, the kinds, the grades, the values, the drips, and the many other details which must be known about this sort of work.

He takes his place at some time in his apprentice career in the "application department," where the customer applying for gas or electric service, is received, and he becomes for the time being one of the clerks of this department. He is taught the importance of inquiring carefully into the credit of new customers, while at the same time remembering that courtesy is of the first importance always, and that prompt service to the customer is a cardinal principle of successful business.

At some time or another he polishes his boots, presses his clothes, cleans himself up, and goes out to solicit new business by selling electric signs, gas stoves, water heaters, electric irons, percolators, and finally he sells electric power for large motors.

### **Taught By Evening Lectures**

During all this time when the cadet engineer may be working

for many hours each day in overalls, or bent over a set of books, or canvassing for more business, he attends lectures in the evening. These lectures run through the whole two years of his work and he is encouraged to attend by being paid 50c for each evening that he attends a lecture, and he is encouraged not to forget by being fined \$2.00 for each one that he fails to attend. Needless to say, the lectures are well attended. At these lectures, the company's general auditor explains the accounts of the company and makes clear the meaning of a balance sheet. The engineers in the various departments explain how to apply theoretical principles to practical necessities. The new business manager, the power expert, the electric sign expert, the steam heating expert, and all the other heads of departments and sub-divisions of the company carefully explain their work.

Experience shows that each student in the course of his employment in the School of Practice, draws out every lecture and takes it home with him for careful and painstaking review. These lectures also permit of the presentation of some subjects which cannot be taught by actual experience, such as for instance, rates, and matters of policy, etc.

### **Morning Conferences**

For instance, in every Doherty company there is a meeting every morning of all the men who are soliciting new business, at which time each man reports briefly upon his work of the preceding day, and receives the counsel and co-operation of others in the work he expects to perform in the future. In every plant there are meetings at intervals of approximately a month, to which all employes are invited, at which time some important feature of the company's work is reviewed and studied.

In this way, every Doherty employe is rounded out and developed. Each man knows what the general manager is trying to accomplish and what his own part is in the successful consummation of the plan. Every man is taught that he must be at all times most particularly courteous and respectful to the public, at all times on the watch for new opportunities for the sale of its product, and for methods by which the company's service may be improved. From the grimy stoker in the boiler room or the gas works, all the way through the organization of each property, to the general manager, each man is taught to keep in mind the necessity for good service, the importance of careful economy and the value of co-operation.

## **EDUCATIONAL ACTIVITIES AT NORTON COMPANIES**

### **A Description of How These Companies Train Their Employees For Factory and Sales Positions**

By E. H. FISH, Supervisor Educational Department

The word "education" in this title is used in its broadest sense, which includes all activities which tend to make an employe more capable of filling his place in the world and, incidentally, in the Norton Company. It is not at all used in the sense, that is so commonly understood, of book learning or laboratory work. The Norton Educational Department consists of a Supervisor, directly responsible to the General Manager, an assistant, and an Advisory Board consisting of nine men from the management of the two companies.

Under the Supervisor are a number of young men who are taking more or less clearly defined courses designed to fit them for various places in the works, sales and office forces. The scope of the work of the Educational Department, however, is not limited to those who are taking definite courses, but its purpose is to make itself as useful as possible to everybody. Special courses are constantly being prepared for men who must be trained for some special position in a very short space of time. Men who are to be promoted from one department to another may have only two or three days, or two or three weeks, of training in the things which are essentially different. The following brief description of the definite courses may be of interest.

#### **Course for Machinists**

The supply of skilled machinists available in Worcester is limited. The present rate of pay for such men is not large, and the cost of living is rather high. This, coupled with a failure on the part of many firms to train their own men, has made it hard work to get the right kind of boys to take an interest in machine work. The Worcester Trade School has found that boys take more kindly to the woodworking trades which are better paid on the average; consequently, they have only graduated sixteen machinists in the last two years, of whom the Norton Company has secured their fair share. The supply from the Trade School will be small until the time comes when, in the popular mind, the trade of machinists is a desirable one from a financial point of view. The object of educational work for machinists is to



counteract this popular feeling by offering an opportunity to boys who have passed the Trade School age, a chance to learn the trade under conditions which will allow them to earn a living wage. This applies equally well to the small number of boys who are taking classroom work, and the large number whose contact with the Educational Department comes only in making their shifts from one class of work to another, and in giving them such advice about their work and life as may be possible from time to time. We appreciate fully that a man may become a most excellent machinist without being consciously educated in mathematics, science or English, beyond what he had in the grammar grades of the public schools. These boys and some of the men are, however, susceptible to the influence of men who can give them the help which they need about their own work. The time of the Assistant Supervisor is given almost entirely to the seventy or eighty young men in the shop of the Norton Grinding Company who are not apprentices but are simply working as operatives. He also shifts these young men from department to department as may seem to be mutually advantageous, not with the idea of making all-round machinists, but to find the kind of work in which they make the best operatives. They have no classroom work, but they can call on the Assistant Supervisor for help in arithmetic or mechanics at any time. They are encouraged to buy small tools and to read mechanical papers. The brightest of these young men are formed in a group, and follow one another through all the different manufacturing departments, getting a thorough training in each. They also meet the Supervisor three times a week for an hour and a half at a time for instruction in mathematics, and such mechanical problems as may apply to the work in which they have been engaged. Methods of making different pieces of work, holding and fastening devices, ways of handling work, materials used in the shop, etc., are all discussed. These boys are expected to develop into all-round machinists, tool-makers, leading workmen, or possibly to become foremen or efficiency men.

### **Training Grinding Machine Operators**

The method of operation of Norton cylindrical grinding machines is so different from ordinary machine shop practice that it is necessary for men to be especially trained for the work. This is done by our demonstrators in shops where the machines are sold so that the men whom they have trained to operate the machines are able to carry on that class of work. When the work



which is done on the machine is varied, however, there is always a danger that these men will not be able to carry over what they have learned and apply it to the new job. To overcome this difficulty, a small group of young men has been taken into the shop of the Norton Grinding Company and given a several months' training in the operation of cylindrical grinding machines. They do commercial work under shop conditions, which is of a sufficient variety so that they will be able to efficiently do any work which may be brought to their machines. Some of these young men are being trained for the Norton Grinding Company's shop, but more often they are selected and sent there by purchasers of grinding machines. After taking the course, they go back to the shops from which they came, as foremen or experts to help the workmen get the best results. In addition to their training at the Norton Grinding Company they have a short course at the Norton Company in the making, grading and inspection of the wheels themselves. This is given by sending them from one department to another, the foreman in each department acting as an instructor for the time being under the direction of the Supervisor. Reports are required from each one of these departments, both from the students themselves and from their foremen, so that their progress is well checked up.

### **Training of Rough Grinders**

A course has just been opened for the training of foremen for rough grinding rooms; that is, places where free-hand grinding is done, like the snagging or cleaning of steel castings. These men are trained in the proper selection of grinding wheels for various purposes. Their course begins in the shops of the Norton Company, from which they go to the snagging room of the Norton Grinding Company, and then take up planning of grinding rooms under various conditions and to meet different specifications. When we consider the thousands of wheels which are used for this rougher class of work, and that most of them are selected by men who have no training of this kind at all, it is not to be wondered at that a great many thousands of dollars are wasted every year by these men in their efforts to produce work, usually in such a way as to make the wheel itself last the longest possible time regardless of how much or how little work it may have produced.

### **Course For Office Assistants**

A great deal of the work of the offices in both companies, especially in the Order and Cost Departments, is of such a nature

that the average non-technical clerk cannot do effective work. His efficiency will depend largely on his acquaintance with the methods of manufacture of wheels and of machinery, and without that acquaintance, he neither knows where to go for the information which he is seeking nor what the information means when he gets it. To meet these cases, a short course has been laid out for young men who are already competent clerks, which takes them through the various manufacturing departments of the Norton Company. They are then assigned to some one of the office departments where the knowledge that they have gained will be of value, and kept there until they reach a final assignment. The total length of this course is only about four months. It presupposes a fairly good education, and an acquaintance with ordinary office methods. Six or eight are kept going through this course all the time, which seems to be enough to supply the increasing demands of the office.

#### **Course For Training Salesmen**

The sales work of the Norton Company is peculiar in that it depends very much on engineering ability. The consequence is that it is necessary for a successful salesman to have an intimate knowledge of the methods of manufacture of the products which he is selling, and also, so far as possible, of the methods of use, which can only be acquired by actual handling and doing of the work of making the wheels and of using them afterwards. The graduate of a technical school or a trade school makes an ideal man for this kind of work after he has convinced himself that he has really graduated from school and is ready for business. To cover this transition period from school to work, a course approximately two years in length is offered in the various shop and office departments of the works. Young men are first given a week's time which is spent largely in trips to various departments of the works, observing closely the different methods of manufacture in use for different products, and then writing a report on the work which they have seen. This is followed by work in the machine shop of the Norton Company, which is typical of repair shops. This leads to work in the shops of the Grinding Company, operating cylindrical, surface and internal grinding machines, and inspecting work done by grinding. They likewise inspect grinding machines as they are being assembled. This is followed by six weeks training in the truing and bushing room, where the wheels are finished ready for testing and inspecting. Then they are followed through the inspection and packing room

to the stock room, as in the case of the office assistants, only that considerably more time is given and the work is gone into greater detail. This is succeeded by work in the drafting room of the Engineering Department, six months in the Mechanical Laboratory, where tests are being constantly made to discover better methods of making wheels and better adaptation of wheels to given kinds of work. Time is spent in the Cost Department and in the Order Department, tracing orders through the shop to see that they are delivered on time, and short periods are spent in the Credit Department, Publicity Department, Refractory Department, etc. During all this time, these men are under the supervision of the foremen, and are given instruction by them in the different technical processes which are carried on in each department. While they are in the Stock Department, a general review is taken of all the stages through which abrasives and wheels go previous to reaching that department, and a comprehensive examination is given which shows plainly whether or not the young man has taken advantage of his opportunities up to that point. No regular class-room work is offered to these men, as it is assumed that the majority of them being college, or technical school graduates, have a liberal equipment along the lines which would be taught in a classroom.

#### **Review Course for Salesmen**

The Norton Company is represented by between thirty and forty men who travel directly from the company's office and stores, and by some fifty or sixty more employed by their agents but whose work is almost exclusively the selling of Norton products. The men who work directly for the Norton Company are brought back to the home office each year for a two weeks' review of processes of manufacture and office methods. At the same time the agents' salesmen are invited to take advantage of the same opportunities, during which time they are the guests of the company. During these two weeks, the men go through the same course, except that it is very much abbreviated, as is given prospective salesmen. Some time is spent at the Norton Grinding Company operating cylindrical grinding machines, during which there is an opportunity for each man to try out various things which he has seen done in his territory, and a few days is spent in experimental work in the laboratories. The rest of the time is divided in smaller amounts between the various other departments. After all the men who wish to take this course have done so, it is probable that the same men will take another course,

possibly of a little longer duration, in which all the work will be cylindrical or surface grinding at the Norton Grinding Company, with the aim of making them competent to advise as to the selection of the proper wheels for any given work on the grinding machines. The reader will notice that all of this work is planned in a degree for its expediency; that is, there are given sources of supply of suitable men for the different departments, from whom the best possible are picked and given whatever training is necessary to supplement their previous training and education and to acquaint them with the technical details of the Norton methods. Little or nothing is done at present in the way of general education, education in business methods, or to take the place of any educational work which is done in public or semi-public institutions. Plans are under way, however, to do some work, especially for clerks in the offices, stenographers, typists, etc., which may appear to conflict with or to overlap the work of the public schools. If this is done, however, it will only be because we find it impossible to get the material properly trained at the expense of the community. It will not be done to further any particular fads or notions which we may have about proper education, but only as a last resort.

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### **TRADE SCHOOLS' GREAT GROWTH**

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#### **Remarkable Increase in Demand for Admission to Vocational Schools of New York City**

One of the most interesting of the departmental estimates for 1916 prepared by the Board of Superintendents of New York City, is that submitted for the vocational schools. Statistics showing the rapid growth of these schools during the past few years are presented in support of the recommendations for additional teachers as are the extensions to be made this coming year in new fields of endeavor. An accurate estimate of the growth of the four vocational schools is impossible at the present time, but it is safe to say that the average registration of these schools is increasing at a pace three times as fast as the day high schools which are expected to show an increase of twenty per cent.

With the term commencing March, 1915, there were enrolled in the vocational school 1,853 pupils, using the March enrolment as a basis, the average increase in registration is 67 per cent.

## **PROFESSOR ROMAN ATTACKS VOCATIONAL TRAINING**

**At the Annual Convention of the National Educational Association this Syracuse University Professor Attempts to Stem the Progress Toward Industrial Training for the American Youth**

An attack was made upon vocational education at the recent National Education Association Convention held in Oakland, Cal. The attack seems to have been inspired by Mrs. Ella Flagg Young, superintendent of education of Chicago. To those familiar with the situation it was an attempt on the part of Mrs. Young to place the National Educational Association on record as favoring the Unit system. It is a continuation of the fight which was made in Illinois during the last session of the legislature of that State. The result of the fight in Illinois was the passage of no industrial educational law, the matter being referred to a committee.

The Commercial Club of Chicago, backing Professor E. G. Cooley, has endorsed the Dual system and has prepared a bill which was described in the September issue of the *BULLETIN*. Jealous of her authority, although unwilling to concede anything to industrial education, Mrs. Young has attempted to carry the fight into the largest educational association and to discredit vocational education. The arguments advanced were set forth in an address made by Frederick W. Roman, Professor of Economics in Syracuse University. That our readers may know what line of attack was pursued, extracts from Professor Roman's address are reproduced here:

"Our capitalists have already robbed our forests and our mines and the natural resources of the country generally—and we are now asked to accept a system of education which looks to the exploiting of our children."

He summed up the matter of vocational training as follows:

### **Industrial Worry**

"More food and clothing is produced per capita than has ever been the case in any previous epoch of history, yet there is great discontent among the workers. Wealth is being concentrated more and more into the hands of the few. The effects of this tendency is expressing itself daily in the threatening social revolution just ahead of us." Strikes of enormous proportions are the subjects of the headlines of great cosmopolitan dailies. Civil strife has been so great and so frequent in recent years



that one may say that the State militia or Federal troops are busy restoring order in one or more sections of the country all the time.

"It is clear, then, that the paramount economic question is not ways and means of producing more goods, but rather a reorganization, or at least a readjustment, of our means of distributing the enormous quantities of wealth which is being produced right now.

### **Efficiency Not Problem**

"To train boys and girls to become mechanically efficient will not solve the problem arising out of the ever-increasing number of strikes and labor wars going on in the United States. The greatest problem before the American people is not how to train boys and girls to produce more goods and better goods in shorter time, but the real problem is the question involving the distribution of the goods which we already produce.

"We cannot hope to hold the material blessings which we now enjoy in the United States unless our schools are able to more fully socialize our people. This quarrel between labor and capital cannot always go on. It will not be solved by vocational schools that have material production as their goal. The need of the present hour is a vocational school that is able to take due cognizance of the industrial strife that is being waged so bitterly between 'those that have and those that have not.'

"This means that the vocational school is dependent upon the cultural training of the elementary school, and that the vocational school curriculum itself must devote a large part of its time to the study of the problems connected with wages, citizenship and democracy."

Mrs. Young, who is really the leader in the fight, had given out an interview preceding Professor Roman's address in which she said:

"I see a conflict coming between the rich and the teaching fraternity in regard to the education of the poor," said Mrs. Young today. "We have fought this movement in Illinois and forestalled at two sessions of the Legislature the separation of the regular schools and the vocational schools. We are constantly being confronted by complaints from the outside that our manual training courses and technical work do not fit the children to take the lower types of work and remain satisfied with their jobs. They complain that our training fits them to be foremen. They want us to turn out the kind of labor that they have been importing from Europe."

Mrs. Young says it is ridiculous to bind any boy or girl to a life vocation at from 10 to 14.

"Not one man in 500 will come out at the top, but every man should want to be one of the 499 others that have tried and failed.

"In 90 per cent of the cases where a boy or girl wants an education the parents will in some way find a means."



The attack, however, fell short of its purpose. There were many staunch defenders of vocational training. In reply to Mrs. Young, Mrs. Lucinda Prince, Director of Salesmanship in Simmons College, Boston, said:

"Vocational training makes pupils worth more to their employers and infinitely more to themselves. It develops individual power with efficiency as the result, and the ultimate end is that they are better men and women."

The press of San Francisco also resented the attack on broader industrial training and in commenting on Mrs. Young's attack, the *San Francisco Chronicle* said editorially:

"Mrs. Young is perhaps wide of the mark in saying that there is a movement on foot on the part of the big interests to control the education of schools. Big business is not sufficiently organized for any such far off purpose. Rather is it the work of meddlesome and muddlesome politicians and misguided educators, who probably have the very best intentions, but who certainly have lost sight of the democratic ideal in education."

The *Chronicle* also replied to Professor Roman editorially:

"It is difficult to write with patience about the foolish babble on vocational training that is set free by schoolmasters and school-marms. And with every desire to be polite to the great educational gathering which is honoring this State with its presence, we are compelled to say that some of the worst of such stuff which has come under our notice has been delivered at sessions of that meeting.

"To begin with, nobody's opinion on that subject is worth listening to except that of those who employ apprentices or the skilled workmen whose sons expect to become apprentices. Least of all, is opinion important of those who, themselves knowing nothing about industry, desire to make a living by training pupils to enter the industries.

"So far as we know, the opinion of employers is unanimous to the effect that the only vocational training of industrial value is that of pupils who definitely look forward to engaging in some particular industry and in schools in whose management employers actively participate, and to whose support manufacturers will very gladly contribute.

"The talk which we call babble is such as the following which was delivered, with more of the same kind, by an educational pundit at one of the sessions of the N. E. A.:

We have already had too much of the kind of guidance that guides a man into a job that unfits him for everything else and reduces him to the level of the dust. The selection of a vocation

must be self-selection by the boy or girl, but under guidance long continued, careful, sympathetic, extending from the kindergarten through the university—a guidance which shall show how human society is organized, the dignity and worthiness of all human service, and the importance of contributing each his best to the common welfare.

Selection of vocation on such a basis will never be ideal nor final; it will not be absolute, nor should it be; but it will be infinitely better than the hit-or-miss method whereby society now bumbles through the job.

"If there is anything that a boy needs, or that society needs that he shall get, it is 'guidance,' and the habit of submission to authority. The lack of them in American families makes young children objects of detestation to all but their fathers and mothers, and the adolescents the despair of employers.

"In no crowded community can the boy choose his vocation except within quite narrow limits. Usually, he must choose among local industries, and when he and his parents have agreed upon what he is fit for, what he prefers or what he can get, at the proper age he should be bound to it, if he can get a chance, and stay there until he learns it.

"Manufacturers detest the boys who come to them as alleged apprentices, not with a definite intent to stay there, but to fiddle around from one industry to another, at the expense of employers, who waste time and material in teaching them while at the same time wasting their own time and impairing whatever they might have of stability of character.

"And if one desires an illustration, compare the industrial efficiency of Germany as it is now being displayed under a system in which parents guide the boy in the choice of his vocation, and in which employers contribute to and largely manage trade schools, with that of the American-born population of American descent, in which the boy jumps about as his untrained impulses lead him."

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#### **CHANGES IN LAKESIDE PRESS STAFF**

Mr. Fred V. Cann, who for the past three years has been the instructor in Design in The School for Apprentices of *The Lakeside Press*, Chicago, leaves for Minneapolis to take charge of the Art and Design Department in Dunwoody Institute of that city.

Mr. Carl D. Davis, of Wichita, Kansas, takes Mr. Cann's place at *The Lakeside Press*.

## **RURAL SCHOOLS PLAYED BY EXPERTS OF N. E. A.**

### **At a General Session Held in Oakland United States Officials Call Country Teachers "Amateurs"**

Dubbing the nation's country school teachers "amateurs," declaring them deficient in preparation, and adding the statement that the country school teacher on the average is paid less per year than artisans, domestics or unskilled laborers, H. W. Foght, of the United States Bureau of Education, government specialist in rural school practice, created something of a sensation when he addressed the general session of the National Educational Association.

Mr. Foght said in part:

"That the rural teachers now at work in the schools are deficient in preparation is provided in a study made recently by the National Bureau of Education. This investigation covered every State in the Union, was carefully planned and carried out. The results were, in many respects, startling and yet not unexpected.

"The tabulations resulting from the investigation show, among other things, that 4 per cent. of all the teachers now at work in the rural schools have had less than eight years of elementary school preparation; that 32.3 per cent. have had no professional preparation whatever, and that only one-tenth of 1 per cent. of these teachers report attendance at schools making a specialty of preparing teachers for rural schools.

"The above figures demonstrate to the thoughtful reader that conditions are not what they should be in rural school teaching today. At this time public school teachers in the United States receive an average annual salary of \$485. Rural school teachers instruct the children of 54.7 per cent. of the entire population, but get as their share only 45.4 per cent. of the total amount expended for salaries. Their annual salary is, accordingly, considerably less than the amount above stated. Artisans, domestics and common laborers receive better wages than do these teachers."

### **Question of Pay**

"The change from amateur to professional teaching may be hastened in several ways: (1) Salaries should be increased enough so a teacher with family may live on his income without worrying how to make ends meet. Provisions should also be made by legal enactment for a liberal sliding scale of salaries

allowing the teacher's income in direct ratio to length of service in the same community. This is only fair, since teachers of the right sort will unquestionably grow in value to the community year by year. (2) The entire school plant should be reconstructed to answer present needs and the attractive and sanitary. This would be another inducement for the teacher to spend his best years in the open country. (3) The community should be obliged by legal enactment to erect a teacher's cottage close by the modern school building and, preferably, upon the same grounds. (4) Teachers' colleges, normal schools and other distinct departments in rural life and rural teaching from which to draw teachers prepared and willing to undertake work in the new farm schools."

### **City Children Healthier**

Dr. Thomas D. Wood of Columbia University this afternoon spoke before the general session on "Child Welfare and the Rural Schools." After stating that about 10,000,000 children, or half of the school children in the United States today are attending rural schools, Dr. Wood declared:

"Country children attending the rural schools are less healthy and are handicapped by more physical defects than the children of the cities (including all the children of the slums).

"The rural school, from the standpoint of health and general fitness for its important use is the worst type of building in the whole country, including not only all types of buildings used for human beings, but also those used for livestock and all domestic animals. Rural schools are on the average less adequate for their use than prisons, asylums, almshouses, stables, dairybarns, pigpens, chicken houses and dog kennels.

"Country children deserve as much health and happiness as city children.

"Country children are entitled to as careful cultivation as the crops and livestock."

During the recent Convention of the National Educational Association, H. O. Williams, principal of the high school at Sacramento, Cal., spoke on "Faculty Advisers in the High School." He said in part:

### **Teachers Are Remembered**

"One must accept two premises: first, that the schools, being maintained by the State, are for the good of the State; that the moral development of the child is more to the advantage of the State than the intellectual development is.

"'Moral development' must not be construed narrowly. Besides matters of decorum and conduct, it may well include the choices of the child as to subject; as to teacher; as to course of study; as to college; as to vocation. It is suggested that as the teachers of English meet every child in the high school, and as their work involves more or less the discussion of moral questions, they are particularly well in position to help along the lines of 'vocational guidance.'

"In conclusion, let me ask you to look back upon your school days. Which teacher do you remember best, that is, with the kindest thought? The one who was saturated with his subject, or the one who taught the boy and girl rather than the curriculum?"

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### **VOCATION TRAINING IS DEFENDED**

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#### **Does Not Mean Elimination of Culture or Classics Is Declared by School Principal**

Vocational education does not mean the elimination of culture or the classics, nor does vocational guidance mean the general pushing of young people out into industry, the delegates to the Department of Vocational Guidance were told of the National Educational Association's recent Convention.

Vocational guidance and the grammar school and vocational guidance and the high school were themes considered.

Jesse B. Davis, principal of the Central High School of Grand Rapids, spoke on the work of the high school in giving assistance to its pupils in their selection of a life work.

#### **Closer to Daily Life**

"Vocational guidance does mean the bringing into our system of education all that is desirable and good in the classic and scientific and relating it to daily life," he said.

"We need a closer co-operation between our pupils and the employers to whom they go. The average employer is looking generally for general intelligence and character. And I believe that the result of all our surveys and investigations will take us back to the same conclusion."

Prof. Terman spoke on the early manifestation of vocational reaching out.

"Vocational guidance is the finding of interests of a child and helping him to follow those interests. Sometimes they lead into blind alleys, but they show him by elimination what he has an inclination for," he said.



## **PULLMAN TRADE SCHOOL NEARLY READY**

### **Institution Endowed by the Late Sleeping Car Magnate will Accommodate Five Hundred Students**

The magnificent new school for technical instruction in trades endowed in the sum of \$1,000,000 by the late George M. Pullman is rapidly approaching completion on the forty-acre site selected by the board of trustees a block or two from the Pullman offices.

The cost thus far has been \$350,000, but there are many subsidiary structures to be erected.

The fund, which was originally \$1,000,000, is now nearly \$3,000,000 as a result of profitable investment. The board of trustees is made up of Frank O. Lowden, who is president; John M. Clark, vice-president; John J. Mitchell, treasurer; Robert T. Lincoln, John S. Runnels & Chauncey Keep.

#### **Building in Renaissance Style**

The building itself is in renaissance style, two stories high with basement, engine room and boiler house in separate quarters in the rear. A wide corridor traverses the main structure and extends to the shop units on either side. It will be extended to connect with additional shop units to be constructed at once.

There are sixty rooms in the school building. The site is opposite Palmer Park, with which it embraces eighty acres.

The intention is to make the school grounds and the park form virtually one large park, as the former tract is to have ornamental lakes, shrubberies, experimental gardens and greenhouses. Fifty thousand dollars will be expended in completing the building and grounds.

In Mr. Pullman's deed of gift there occurred this paragraph:

"This school is founded for the benefit of the children of persons living in or employed at Pullman."

Provision is being made for 500 students. The plan is to admit an equal number of boys and girls. The only provision is that they must be graduates of grade schools or possess elementary education of the same approximate value. There is no sectarian provision. While the school has no official connection with the Pullman works it is to be anticipated that much of its finished product will be absorbed by the Pullman works.

The director of the new school is Laenas G. Weld, formerly professor of mathematics and dean of the University of Iowa, with which institution he was connected for twenty-five years.

In an interview with a representative of the *Journal* Mr. Weld said:

"It is our intention in carrying out the wishes of Mr. Pullman with regard to the school, to turn into the community each year a certain number of thoroughly trained, intelligent workmen in the several trades—men who can, with the expert knowledge they will possess, go ahead into the best positions, confident in their ability to do the work. The course will be four years.

#### **Will be No Fees of Any Sort**

"There are no fees of any sort. Boys will be taught carpentry, cabinet making, pattern making, blacksmithing, casting, machine shop practice, electric installation and operative engineering. The girls will receive instruction in domestic science.

"As soon as the enrollment begins the lists will be filled immediately. I anticipate that there will be a large waiting list."

"Is it the intention to have a course of lectures directed toward the improvement of relations between employer and employed?"

"We are not touching politics, religion or economics. There is to be no propaganda of any sort. The purpose of the institution is purely and simply to turn out high-class, intelligent workmen equal to the best in the world, or, if possible, better."

The school will cost \$80,000 a year to maintain in its present extent. Addition of shop units and other erections are expected to increase the annual cost ultimately to \$100,000.

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#### **WORKING THROUGH COLLEGE**

*(Goodyear Wingfoot Clan)*

We have long ago learned how to train horses and dogs to the very limit of their capabilities, but are only now learning how to train the human animal for actual life. Species of the horse and dog were early perfected for practically every need, but until the very present, we have been content to turn boys and girls out into the world only half equipped for the real work and battle of life.

With a view toward obtaining employees really educated for business life, nearly a score of industrial concerns in New York City have united in establishing, in the University of the city, a number of "business fellowships." The arrangement provides that the student receiving one of these fellowships shall give the concern supporting it half of his time while the University is in session, and full time during the summer, in return for which

he is paid a living wage during the entire year, say from \$60 to \$75 per month.

How the idea is "taking" may be inferred from the response which has thus far met the offer. While only twenty of the fellowships have been arranged for, there have been 230 applications received from all parts of the country. Since the studies are devised to fit the students for responsible positions (which are virtually assured them), one may confidently expect this "business fellowship" method to be extended to many other colleges of the land.

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### JOHNSON TRAINING SCHOOL AT SCRANTON

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#### **Outside Educators Studying Conditions—Will Assist in Deciding on Site for Manual Training Institution**

The advisory board named in the will of the late O. S. Johnson of Scranton, Penn., to establish the manual training school, for which he made such generous provision, is taking prompt measures to comply with the wishes of the testator, says the Scranton, Penn., *Times*. They have engaged the services of four prominent educators who have specialized in vocational training, and this commission is making a comprehensive study of the industrial situation in this city and vicinity for the purpose of determining the nature and scope of the institution. The establishment of the O. S. Johnson training school has been delayed by litigation which is now happily concluded. No further obstacles to the fulfillment of Mr. Johnson's design now exist and the trustees he appointed to carry out his plans are to be commended for their prompt action, in the matter.

Until the survey of the industries and sites in the city is completed by a commission of educators, there will be no action taken by the advisory board, provided for in the will of Mr. Johnson, relative to site, structure and studies.

The erection of a main school in Scranton and establishment of branch schools at central points in the county may be a decision of the advisory board. The schools will be conducted on the interest of \$1,600,000 and it may be that some of the interest will be added to the principal yearly until there is a fund of \$2,000,000.

#### **Gathering Necessary Facts**

Many unexpected figures are being turned in by the surveying commissioners. They are determining the number of working girls and boys in the county, their earning capacities, the character of employment in the industries of the county and a lot of

other facts of interest. They are visiting mines, factories, shops, homes, etc. The commission is composed of Robert Keller, of the University of Illinois; Stanley A. Zeibel, supervisor of industrial education of the State department of public instruction; M. W. Murray, supervisor of the Newton Trade School, Newton, Mass., and Miss May Allison, principal of the Boston vocational school for girls.

As much attention will be given to girls as to boys by the commissioners and later by the training school board. Miss Allison is centering her energies on the girl part of the investigation. Local educators are meeting in conference with the commission and giving valuable hints.

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### **RURAL-SCHOOL NEEDS**

*(Saturday Evening Post)*

A speaker at the recent Banker-Farmer Conference in Chicago shed an odd little sidelight on that much debated question of a literacy test for immigrants. It is contended—cogently too—that a man who has had no educational opportunities in his childhood is less apt, on the whole, to make a profitable citizen than one brought up in a community where education is prized. On that principle Congress declared that persons unable to read and write in any language should be excluded.

It is well known that the immigrant usually settles in a city, and there his children attend a public school that cost all the way from a hundred thousand to half a million dollars, a school probably well built, well ventilated and well equipped. Public-school libraries, laboratories, gymnasiums, lecture rooms, will probably be available to that immigrant child.

"Turn now," said Professor Christie, of Purdue, "to the children of native stock engaged in the basic industry of agriculture. We find them tramping down a muddy road into a little bare, two-by-four schoolroom that has no pictures, no shrubs; no books, no laboratory, where they are taught by a girl sixteen to eighteen years old, just out of high school, with no training, burdened with a multiplicity of duties. And we say that upon these native farmers' boys and girls the hope of America depends!"

Think that over. Does the unattractive, incompetent, out-of-date, one-room country school still obtain in your region? Or have your neighbors waked up and begun consolidating the rural-school districts—with a tolerably convenient, fairly well-

equipped, comparatively modern graded school in each new district?

## EDUCATING THE ADULT IMMIGRANT

### **Evening, Part-Time, Industrial, and Camp Schools are the Four Main Agencies Employed to Teach the Older Aliens**

By J. O. Knott, Specialist in United States Bureau of Education.

*(Special Correspondence of The New York Evening Post.)*

The agencies and methods used in the education of the adult immigrant to fit him for American citizenship have been given at length in the annual report of the United States Commissioner of Education. A summary of what that report has to say is as follows:

Immigrant education deals with two classes—the child and adult. The first is of minor importance, since compulsory attendance upon public schools is general. Special attention upon the part of the public-school teacher will give to the foreign-born child a command of English sufficient to give him a grading. Education can then take the same course as with the native child.

The real problem of immigrant education begins at the age of sixteen. Beyond that age, with a single exception, compulsory education laws do not apply. With foreign-born minors between the ages of ten and twenty-one years there is some tendency to study English or obtain industrial training; but, with the adult immigrant aptitude and desire for instruction are less decided, and ability to acquire language largely lost. It is with this class that education presents special difficulties.

### **Four Types of Schools**

The schools adapted to the education of the immigrant are evening, part-time, industrial, and camp schools. The evening school is the one usually provided for the immigrant learning English. New Jersey, which makes the most definite legislative provision for the education of foreigners of any State in the Union, specifically authorizes the establishment of evening schools by a district school board "for the instruction of foreign-born residents, . . . over fourteen years of age, in the English language, and in the form of government and the laws of the State and of the United States." The other principal "immigration" States—New York, Pennsylvania, Massachusetts, Ohio,



Indiana, Illinois, Wisconsin, and Minnesota—provide in general terms for the creation of evening schools, not limiting their usefulness to immigrants. Practically every State makes some provision with reference to the establishment of evening schools by local school boards.

The part-time, or continuation school, is most directly adapted to educating an immigrant minor after he has completed grade work. The continuation evening school is especially fitted for this purpose. New York, Massachusetts, Pennsylvania, Wisconsin, and a few other States provide for such continuation schools.

### **Greatest Need Industrial Education**

Next in order, after getting command of English, the alien finds greatest need for industrial education. This is particularly true of the minor from fourteen to twenty-one years old. Of the ten great industrial States, each with a foreign-born population exceeding 100,000, eight of them authorize by law the establishment of industrial schools, or make provision for vocational training. In comprehensive and definite legislation, Massachusetts, Pennsylvania, New York, and Wisconsin lead, while Rhode Island, New Jersey, and Ohio also make provision for industrial education.

Camp schools are an innovation in school extension. The immigrant in the labor camps along railways and highways, isolated from American influences, presents an unusual need for educational facilities. At least two States have taken action in connection with this need, viz., New York and California. New York authorizes the commissioner of labor to establish temporary school districts outside of cities and union free school districts, where a large number of persons engaged in the construction of public works are collected in camps. These camp schools are to be conducted according to the regulations of the State Department of Education. The California commissioner of immigration and Housing, under the act creating it, was given similar power to that conferred upon New York by the commissioner of labor.

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### **LONG ISLAND AGRICULTURAL SCHOOL**

A. A. Johnson, director of the New York State School of Agriculture on Long Island, has sent out a tentative outline of the policies of the institution which will not open, however, until

next winter or spring. Pupils will be accepted having educational abilities equal to at least those of an eighth grade student.

It will be vocational in method, and might be called a farmer's trade school, not a college, not a college preparatory institution, it will welcome upward of 1,000 young men and women, at first receiving 200 young male students, to start the out-door work, and later initiating the homemaking department.

Instruction will continue throughout the day, and little time for personal pursuit will be possible. Instructors will accompany the students in field, orchard and barn. The course will extend through twelve months. Tuition will be free to bona fide residents of New York. Board, and certain laboratory work will be charged for.

Departments are projected in extension service, academic science, vegetable gardening, marketing and co-operation, dairying and animal husbandry, farm, crops, soil fertility, poultry husbandry, farm mechanics, pomology, library methods, music and physical training. There will be a women's department.

Practical and scientific farming and homemaking are the two chief subjects planned in the curriculum.

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### **EFFICIENCY A GOAL**

*(New York World)*

The news columns of yesterday told of the graduation of a second class of salesgirls from a school maintained by a great department store, and of diplomas granted to fifty janitresses from a special school on the east side. The janitresses are to serve in certain congested tenement sections where experts are required to wrestle with sanitary problems complicated by a confusion of nationalities, customs and tongues.

These graduation instances are incidental to the very general movement of the times toward the point of highest individual efficiency. It is likely that never before were so many persons aiming at such a variety of occupations, so busily engaged in learning how to get about their businesses in the best possible way.

Vocational schools multiply, as it were, while we wait. The principle of them is in harmony with the principles of civil-service advancement and of the promotion of business administrations for cities. At present our political training is behind our commercial and industrial education. But some day, doubtless, we shall govern ourselves as efficiently as we work for ourselves.

## **TRAIN GIRLS FOR BUSINESS LIFE**

### **Illiteracy is the Greatest Menace of Industrial Peace, Declares Woman Expert**

Declaring that illiteracy is one of the greatest menaces to industrial peace, that the foreign-born wage earners draw more pay than others more gifted mentally, simply because of their persistency, and that the present day concentration makes it necessary for the girl to receive a proper course to prepare her for business, Miss Anna Charlotte Hedges, Ph.D., has completed an analytical study of six hundred women workers for Columbia University's contribution to education. Miss Hedges is a graduate of the Teachers' College and is now an expert in vocational training in the service of the State Department of Education. She is associated with Dr. John H. Finley, commissioner, and Arthur D. Dean, head of the State vocational training.

Miss Hedges has completed a study of twenty thousand working girls, and this has just been issued by Teachers' College in a volume, "Wage Worth of School Training," which is produced purely in the name of science. In making this exhaustive study, Miss Hedges conferred in detail with employers, foremen, forewomen and managers, questioned several hundred girls themselves and made an exhaustive study of every phase of the subject.

### **Summary of Conclusions**

She comes to various interesting conclusions, which may be summed up as follows:

Schools instruct girls without reference to discovering and training progressive, wage-earning ability.

Training in specific process operations can be given best and most adequately by the management itself in the factory.

Work will be most remunerative to the girl who enters the industrial world from the school able-bodied, industrious, right-minded, trained in dexterity and in the correct meaning and use of the English language.

Co-operation is necessary between the two great factors in the general education of all wage earners, the school and industry. By co-operation, the school can continue the training of the girl whose economic needs unfortunately have shortened her school life, and aid in this continued training of the wage

earner should be afforded by releasing her from work during the day for part time at full pay.

Public interest is required to promote this co-operation between industry and the school. Interest can be aroused mainly through demonstrating the economic worth of school training by adopting school methods freed from scholastic symbolism, and full of the experience of problems involving tools, materials and processes.

The school system should include among its definite and expressed aims the training of every child, without exception, in ability to earn by producing.

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## **WAGE WORTH OF SCHOOL TRAINING**

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### **Miss Hedges Finds that Schools Teach Girls with No Reference to Their Wage-Earning Ability**

In an analytical study of six hundred women workers in textile factories, embodied in a volume entitled "Wage Worth of School Training," Miss Anna Charlotte Hedges, Ph.D., has made a valuable addition to Columbia University's contributions to education. In conducting this inquiry, Miss Hedges saw twenty thousand girls at work, conferred in detail with employers, foremen, forewomen, and managers, questioned several hundred girls themselves, and made an exhaustive study of 617 questionnaires.

Resultant conclusions Miss Hedges summarizes as follows:

Schools instruct girls without reference to discovering and training progressive wage-earning ability.

Training in specific process operations can be given best and most adequately by the management itself in the factory.

Work will be most remunerative to the girl who enters the industrial world from the school, able-bodied, industrious, right-minded, trained in dexterity and in the correct meaning and use of the English language.

### **Industry and Schools Must Co-operate**

Co-operation is necessary between the two great factors in the general education of all wage-earners, the School and Industry. By co-operation the school can continue the training of the girl whose economic needs unfortunately have shortened her school life, and aid in this continued training of the wage-

earner should be afforded by releasing her from work during the day for part time at full pay.

Public interest is required to promote this co-operation between Industry and the School. Interest can be aroused mainly through demonstrating the economic worth of school training by adopting school methods freed from scholastic symbolism and rich in experience of problems involving tools, materials, and processes.

The school system should include among its definite and expressed aims the training of every child without exception in ability to earn by producing.

As a practical means of effecting co-operation, day-time school work conducted by the public school in the factory may properly be introduced for unschooled wage-earners—in the factory because, thus, factory wage-earning is given just recognition by the public school and as an aid in counteracting sweat-shop employment; by the public school because, as a public, and hence non-partisan institution, confidence is inspired in those who thus gain training necessary to citizenship in a democracy.

#### **Use of English Instruction**

This school should be planned (1) to remove illiteracy, the prevalence of which in an English-speaking land, largely and constantly recruited by foreign-speaking people, is a menace to industrial peace; (2) to instruct in the essential laws and practices of hygiene; (3) to use instruction in English as a means to bring about adequate understanding of business ethics and individual responsibilities.

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#### **TO TRAIN BOSTON BOYS FOR VOCATIONS**

An event of special interest to many people of Charlestown, a suburb of Boston, in connection with the reopening of the public schools will be the opening of a prevocational centre for the Charlestown district, to be established by the Boston school committee in the Prescott School under the direction of Headmaster Maurice J. O'Brien of the Prescott district.

The prevocational centres present one of the newer departures in educational work which has recently been undertaken by the school committee in behalf of the children of the elementary schools in different parts of Boston, and the establishment of the Charlestown centre will provide these new educational opportunities for the children of that section.



It is the purpose of the prevocational centre to offer boys of the grammar school grades an opportunity to combine with their regular school work a training in some line of practical endeavor. In that way it is intended that children having natural inclination or talent for a certain line of practical work, either mechanical or scientific, may be given a chance to follow their inclinations with both interest and profit under expert instruction.

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### **WISCONSIN COURSES IN MANUAL ARTS**

This year people in the State of Wisconsin, who are interested in manual arts and industrial education will have the opportunity to take courses in these subjects through the University Extension Division. As stated in the BULLETIN the courses are intended "to provide instruction for systematic reading by those who are interested in manual arts and industrial education in the home, social settlement, regular public schools, or vocational schools." The courses have to do especially with the teaching and supervision of manual and industrial arts, the organization of manual and industrial arts, and vocational education and vocational guidance. The courses are given by F. D. Crawshaw of the Manual Arts department of the university of Wisconsin, and embody many of his new ideas on the organization and teaching of manual and industrial arts.

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### **EDUCATIONAL CHANGES ON PACIFIC COAST**

Superintendent Charles C. Hughes of schools of Sacramento, Cal., in his annual report to the Board of Education, points out that "in the elementary schools we are rapidly working towards a new system of work for the upper grades. Educators have felt for a long time that the work of the seventh and eighth grades was lacking in breadth, and there is a growing demand for differentiation in subject matter at the beginning of the seventh year, thus allowing the pupil to specialize or to take up earlier the subjects most adapted to his ability, or in harmony with the vocation he expects to follow. This would leave the first six years for basic training, the seventh and eighth grades (or the next two years) to discover himself and find his adaptations.

"The high school could then be split into two parts of two years each. Many would take the full four-year academic course, while others, who could not afford the time, could be advanced considerably toward their life work at the end of two years. We should provide for the next two years, too, which would be the

junior college, thus keeping our young folks at home at the most impressionable time of their lives for two years longer, and at the same time giving many the opportunity to receive two years of college work who could not afford the expense of going away. Your superintendent has departmentalized the department in preparation for this plan. The teachers are becoming well prepared for it. There is no haste, but our present drawback is lack of room, the phenomenal growth of our city making it necessary to sacrifice much in order to provide room for a large number of new pupils.

"Undoubtedly, the most advanced step in our high school work has been preparation for vocational training at the beginning of the new school year."

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### **URGES MUNICIPAL VOCATION BUREAU**

Did you ever take up a trade, and after working at it for years, find that you were not fitted for that kind of business? asks the *Chicago Tribune*.

Did you ever wish that you had prepared more directly for your vocation and had thus saved a great deal of wasted time?

Such loss of time and energy may be avoided, it is urged, if plans for a municipal vocational guidance bureau submitted to Mayor Thompson by President Huber William Hurt of Lombard College are carried out.

President Hurt spoke to an audience of teachers at the University of Chicago recently.

"What do you know about yourself?" he said. "The most important reason for vocational guidance is evident when we consider our appalling lack of knowledge of our own personalities, on which all our possibilities for life are tied up.

"A complete system of vocational guidance would save a man fitted to be a carpenter years of wasted time by leading him directly into his proper field of work. As I see it the business of education is to prepare for life, yet we send hordes of boys and girls out from our schools into the world at far too early an age, with no real qualifications for meeting the struggle of life."

President Hurt has been studying the question of vocational guidance for over eleven years, and is one of the pioneers in the movement. Since 1912 he has run an extensive bureau at Lombard College. No freshman is allowed to enter the college before he has definitely made up his mind as to what his life task is to be.

### **COLLEGE LIFE IS LOAFING**

Thomas M. Balliet, dean of the School of Pedagogy of New York University, who spoke on "Vocational Education and Practical Arts at the National Education Association," said that the present college system meant four years of loafing. College students, he said, lacked definite aim, and without this the mere prolongation of general education, was a waste of time.

He suggested that the four-year period be divided into two two-year periods, the first two years to be devoted to general training and the last two years to training in professional schools.

### **DELGADO TRADE SCHOOL OF NEW ORLEANS**

#### **Those For Whom Courses Are To Be Adapted And Form of School Control Suggested**

In advance of David Spence Hill's report prepared in anticipation of the establishment of the Isaac Delgado trade school of New Orleans, a brief synopsis is given out to the press.

For the Hill survey trade schools in other cities were visited, manufacturing plants were inspected and several hundred occupations were studied. The report is intended to be of general use for vocational guidance in addition to its original purpose.

#### **How Courses Must Be Adapted**

Dr. Hill, who is director of the division of educational research for the New Orleans school board, finds that the Delgado courses must be adapted to the needs of:

(1) Boys 14 years of age and older, who usually will go no further than the sixth grade in the elementary schools; (2) older and more advanced boys ready to learn a trade, in smaller numbers; (3) youths and men in industry who desire either to improve their skill and knowledge or to change their occupation by means of evening courses and part-time courses. A plan was drawn, therefore, for the organization of the school into two departments—first the preparatory trades department, intended for boys from 14 to 16 years of age, a department not teaching a trade, but intended to interest and hold the boy, give him a knowledge of different mechanical industries and thus lead him to a sensible choice of a definite vocation or trade at about 16 years. Secondly, the practical trades department, containing these four divisions for the intensive teaching of trades in whole or in part: Metal Working Trades division, Building Trades division, Wood-

working Trades division, Operative Engineering division, Printing Trades division.

Control of the proposed trade school Dr. Hill would repose in a board of directors to be assisted by associate council. The council would consist of two active manufacturers of New Orleans, two active wage-earners in mechanical trades, two other public-spirited citizens, the president of the school board and the superintendent and director of Delgado school. The council would in turn appoint advisory committees from the various industries of the city.

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### **AGRICULTURE COURSE FOR HIGH SCHOOL**

Increasing interest is being manifested this year in the opening of the Holley New York High School, when the new four-year course in agriculture will be instituted. The taxpayers of this school district which is located near Rochester and in an agricultural section, voted favorably for the establishment of this vocational work, which will be an entirely new feature in this locality. The idea has met with general approval and there is no doubt but that the new course will be a popular one.

The department will be in the hands of a capable instructor, the Board of Education having secured the services of L. J. Steele, of Fairport, who was graduated from Cornell University last June and during the summer months has taken a special course in methods of directing the work of boys studying agriculture in high schools.

The new course will be of four years and will include a general outline of farm work with home project work in gardening, elementary mechanical drawing, wood working, poultry husbandry, fruit growing, nursery growing, spraying insect pests, diseases, animal husbandry and dairying.

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### **GENERAL EDUCATIONAL NOTES**

Director John W. Davis of the Bureau of Attendants of the New York City Board of Education says that school transfers are issued at the rate of 300,000 a year in that city. About 50,000 children a year receive employment certificates. In normal times from 13,000 to 20,000 children enter New York City as immigrants. More than 8,000 are allowed to leave school because of physical inability to attend; 4,000 disappear, and 3,500 under 7 years of age are withdrawn by their parents.

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A table showing that ninety per cent. of the graduates of the Boys' Industrial School of Newark, N. J., are following as

wage-earners the trade they studied in the school was included in the report recently prepared by the principal, James E. Dougan and filed with the Board of Education. The table was compiled from records kept of all the boys who have gone out from the school. There have been 153 graduates in five years, the report stated, and of these only one has died and but five have failed to respond to the questions sent each year, asking information as to their occupation, place of employment, wages received, etc. The leading occupations followed are the metal and machine trades, in which thirty-six are engaged; drafting, twenty-six; printing trades, twenty-two, and clerical work in manufacturing establishments, nineteen. Smaller numbers are scattered through various trades, while eleven are pursuing post-graduate courses. One use to which the academic training, which accompanies the technical course throughout and is closely co-ordinated with it, may be put is suggested by the announcement that nineteen of the young men are holding clerical positions in manufacturing establishments.

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The course in shop work to be given boys in the seventh and eighth grades of the Philadelphia public schools during the coming year will mean a great deal more than mere instruction in manual training, according to the plans of Dr. John P. Garber, acting superintendent of schools, and Dr. John C. Frazee, director of vocational education. Subjects taken up in the classroom, such as arithmetic and English, will be given practical application in the shop. "A boy realizes the value of his classroom work if he is made to apply it to some practical task," said Doctor Garber recently. "And it is our intention to arouse interest in school work by this method. The whole aim of the department now is to get the school room more closely linked with the life about the pupils."

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City Chamberlain Henry Bruere of New York City, chairman of the Committee on Educational Courses for City Employes, announces that courses will be given for city employes in engineering, accounting, clerical subjects, applied sciences, municipal government and other subjects bearing upon the work of city employes. These courses will be given in the Municipal Building by instructors from New York University and City College. Tuition fees will be merely nominal.

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A model house, in which school girls are to be instructed in housekeeping, furnishing, house decorating and other points in home making, is the latest departure of the Amsterdam, New York State, vocational school.

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The New London, Conn., Vocational School opened for the fall term with a total enrollment of regular students, not including those who take special courses, of 475. The school has the largest advance registration this year that it has had in its history. Arrangements have been made that boys of the grammar schools



may receive special instruction in manual training and mechanical drawing, and girls may be taught sewing and cooking. There will very likely be a different class of boys and girls each day from the grammar school.

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Ernest L. Thurston, Superintendent of Schools, of Washington, D. C., is organizing a committee to make a city-wide vocational training survey, which will be empowered to inspect schools of other cities, and to make recommendations to the Board of Education for a comprehensive and permanent system of such education in the Capital city.

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Expert instruction in scientific agriculture will be given school boys picked from every county in Michigan by competitive examination at the State Fair Boys' School to be held during the first week of the Michigan State Fair, according to the announcement of G. W. Dickinson, general manager of the fair. The boys who will attend the lectures on horticulture, livestock breeding and dairying have passed with high grades the examinations conducted by the school commissioners in their respective counties.

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At the earnest request of a number of mothers, the Camden, New Jersey, Board of Education has ordered the opening of a culinary department of the Genge School, Sixth and Market Streets, by the beginning of the Fall term, so that the girls from North Camden will have an opportunity of learning how to become housewives. Culinary departments have already been established at Mt. Vernon, Starr, Washington, Cramer, Whittier and Bonsall Schools for the girls in the East Side and in the southern section of the city.

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In order to finance the Gary system of instruction that will be inaugurated at the Florence Avenue, Newark, New Jersey, School, the Irvington Town Commission has appropriated \$2,000 to cover the cost of manual training, which is included in the new system. A similar sum will be given by the State to carry out the system, the law providing that the additional cost be evenly divided between the town and the State.

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The State Federation of Labor of New Jersey at its annual convention considered a resolution introduced by R. Elmer Throssell, a member of the Newark Board of Education, who was a delegate to the convention. The resolution was adopted providing for the appointment of a special committee of three from the State Federation of Labor to arrange with the State Federation of District Boards of Education instruction in industrial and vocational education among public school pupils. The document requests that union labor men make suggestions as to certain industrial courses in schools. In connection with this, another resolution was adopted asking that machinery used by the various boards of education be in charge of experienced workmen.

Rapid progress is being made toward the plans to open the Girls' training school at Gainesville, Texas, on January 1, 1916. This school had its beginning in the Thirty-third Legislature, when a statute was passed making an appropriation of \$25,000 for its establishment, though this appropriation will not be available until a like sum of \$25,000 is raised from outside sources. A thorough course will be given in literary, vocational and domestic training. Only college graduates will be employed as teachers in any department. Girls will be received at the school only through the juvenile courts of the various counties.

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It has been estimated that tools and supplies for shopwork instruction in the elementary school of New York City during 1916 will be needed for approximately 82,000 boys at 78 cents per pupil. It is upon this basis that the committee on supplies has been requested to make up its budget by the board of superintendents.

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The public school officials of the District of Columbia are preparing to ask the District commissioners to include in their estimates at the next session of Congress an appropriation for establishing and maintaining a vocational guidance bureau in connection with the public schools of Washington. The proposed vocational guidance bureau, it is understood, will not be operated in connection with any of the courses now taught and will be for the pupils who have passed the eighth grade.

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The Division of Industrial Education of the United States Bureau of Education, Washington, D. C., has prepared for distribution a preliminary "List of Schools in Which Trades are Taught," with the names of the directors; also a list of names and addresses of directors in charge of "Courses for the Preparation of Special Teachers (Men) or Directors or Supervisors of the Manual Arts or for Vocational Schools"; also a list of "References Dealing with Courses of Study in the Manual Arts, Household Arts, and Vocational Educating." Copies of these lists will be sent to any address upon request.

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At the Brooklyn Evening Trade School that is maintained in the Manual Training High School building there was a rush of South Brooklynites to enroll this year. A number of new trades will be added. Practically every trade is taught at this school and the building has one of the most finely equipped plants for this kind of work in the entire country.

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An expansion of the commercial course of the public school system of New London, Conn., so as to allow much greater advantages to both the boys and girls of the city desirous of business education, will be started. The changes will be made at the instance of the board of school visitors and under the direction of R. A. Brubeck, former head of the New London Business College.

An extension of manual training education has been made possible by the School Board of Chicopee, Mass., as a result of its plan to include boys of the eighth grade of the public schools for the training as well as the installation in three of the schools of workbenches for this department of education. David Spencer has been elected supervisor of manual training for the boys of the eighth and ninth grades.

Gilbert, Minn., boys who have an ambition to learn the art of printing will not be obliged to pass through the "devil" stage, according to the decision of the school board of the district, which voted to install an equipment of type and machinery in the high school building.

Children drew more than 4,110,000 books from the New York Public Library last year.

There are more than 18,000 regularly established libraries in the United States. In all they contain more than 75,000,000 volumes, which is less than one book to every man, woman and child in the country. The gain in volumes during the last seven years is 20,000,000.

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## Committees of The National Association of Corporation Schools 1915-16

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### Trade Apprenticeship Schools

J. W. L. Hale, *Chairman*,  
The Pennsylvania Railroad Co.,  
Altoona, Pa.  
W. L. Chandler,  
Dodge Manufacturing Co.,  
Mishawaka, Indiana.  
J. M. Larkin,  
Fore River Shipbuilding Corporation,  
Quincy, Mass.  
F. W. Thomas,  
Atchison, Topeka & Santa Fe Railway,  
Topeka, Kansas.  
Paul V. Farnsworth,  
Cadillac Motor Car Co.,  
Detroit, Mich.  
Thomas G. Gray,  
Southern Pacific Co.,  
Sacramento, Cal.

### Advertising, Selling and Distribution Schools

Dr. Lee Galloway, *Chairman*,  
New York University,  
New York, N. Y.  
Professor M. T. Copeland,  
Harvard Business School,  
Cambridge, Mass.  
O. B. Carson,  
American Optical Co.,  
Southbridge, Mass.  
Frank L. Glynn,  
Boardman Apprentice Shops,  
New Haven, Conn.

### Special Training Schools

J. W. Dietz, *Chairman*,  
Western Electric Co.,  
Chicago, Ill.  
J. E. Banks,  
American Bridge Co.,  
Ambridge, Pa.  
T. E. Donnelley,  
R. R. Donnelley & Sons Co.,  
Chicago, Ill.  
Fred R. Jenkins,  
Commonwealth Edison Co.,  
Chicago, Ill.  
W. K. Page,  
Addressograph Co.,  
Chicago, Ill.

### Retail Salesmanship

James W. Fisk, *Chairman*,  
J. L. Hudson Dept. Store,  
Detroit, Mich.  
Miss Reulah Kennard,  
105 West 40th Street,  
New York, N. Y.  
Miss Lilian Meyncke,  
The Rike-Kumler Co.,  
Dayton, Ohio.  
H. G. Petermann,  
United Cigar Stores Co.,  
New York, N. Y.  
Mrs. Lucinda Prince,  
264 Boylston Street,  
Boston, Mass.

## Committees of The National Association of Corporation Schools 1915-16

### Accounting and Office Work Schools

George B. Everitt, *Chairman*,  
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New York, N. Y.  
Dr. Louis I. Dublin,  
Metropolitan Life Insurance Co.,  
New York, N. Y.  
R. H. Puffer,  
Larkin Co.,  
Buffalo, N. Y.  
H. A. Hopf, Phoenix Mutual Life In-  
surance Co.,  
Hartford, Conn.  
Frederick Uhl,  
American Telephone & Telegraph Co.,  
New York, N. Y.  
William R. DeField,  
Montgomery Ward & Co.,  
Chicago, Ill.

### Safety and Health

Sidney W. Ashe, *Chairman*,  
General Electric Co.,  
Pittsfield, Mass.  
L. H. Burnett,  
Carnegie Steel Co.,  
Pittsburgh, Pa.  
Arthur T. Morey,  
Commonwealth Steel Co.,  
St. Louis, Mo.  
J. C. Robinson,  
The New York Edison Co.,  
New York, N. Y.  
C. B. Auel,  
Westinghouse Electric & Manufacturing  
Co.,  
East Pittsburgh, Pa.

### Allied Institutions

James A. Roosevelt, *Chairman*,  
Roosevelt & Thompson,  
New York, N. Y.  
Norman Collyer,  
Southern Pacific Railroad Co.,  
San Francisco, Cal.  
R. L. Cooley,  
Supt. Continuation Schools,  
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### Codification Committee

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Bing & Bing Construction Co., Inc.,  
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American Telephone & Telegraph Co.,  
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New Membership Committee not yet appointed.

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### Employment Plans

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Goodyear Tire & Rubber Co.,  
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N. F. Dougherty,  
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Framingham, Mass.  
Edward B. Saunders,  
Simonds Manufacturing Co.,  
Fitchburg, Mass.  
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National Lamp Works, General Elec-  
tric Co.,  
Nela Park, Cleveland, Ohio.

### Public Education

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Worcester, Mass.  
E. G. Allen,  
Cass Technical High School,  
Detroit, Mich.  
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Packard Motor Car Co.,  
Detroit, Mich.  
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### Vocational Guidance

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H. W. Dunbar,  
Norton Grinding Co.,  
Worcester, Mass.  
L. W. George,  
Commonwealth Steel Co.,  
St. Louis, Mo.  
A. W. Soderberg,  
Carnegie Steel Co.,  
Munhall, Pa.

